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The WESTERN RAILROADER

For the Western Railfan

SAN JOAQUIN & EASTERN RAILROAD

A passenger train of the San Joaquin & Eastern Railroad in 1919 at one of the more spectacular bits of construction across the face of a granite cliff about a mile below Cascadia where the trestle was anchored with iron bolts in the rockwall. From the collection of Gilbert Kneiss.

Vol. 19, No. 5 MARCH, 1956 Issue No. 197

Top - San Joaquin & Eastern passenger train at Big Creek (also known as Cascadia) posed below Power House #1. From the collection of Charles Smallwood.

Bottom - San Joaquin & Eastern passenger train in 1919 headed by engine 107. From collection of Gilbert Kneiss.

The Western Railroader

"For the Western Railfan"

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California-Nevada Railroad Historical Society

Official Publication

Pacific Coast Chapter

San Joaquin & Eastern Railroad

By WALT SIEVERS

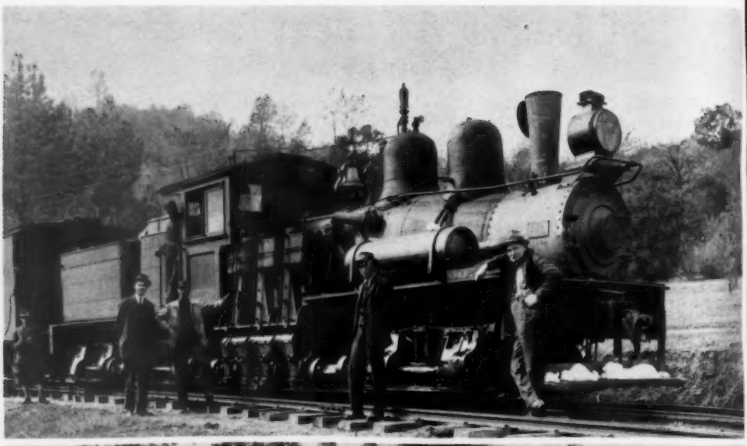
In 1912 the Pacific Light and Power Company undertook the construction of its hydroelectric poject on Big Creek in the Sierra Nevada Mountains about 70 miles northeast of the City of Fresno, California. Big Creek is a side-arm of the San Joaquin River and the project attracted much attention at the time due to the fact that a large amount of power was to be developed from a comparatively small amount of water a high head (pressure) and because it was going to have the longest transmission line with the highest line voltage of any plant in the country when completed.

The project called for the construction of three massive concrete dams over 100 feet high which were to form Huntington Lake. From the lake the water would flow through a short tunnel and then through the penstocks which drop 2100 feet vertical distance to power house No. 1. Just below this power house a diversion dam 70 feet high in the bed of Big Creek itself would guide the water into a second tunnel and penstocks with a vertical drop of 1900 feet to power house No. 2.

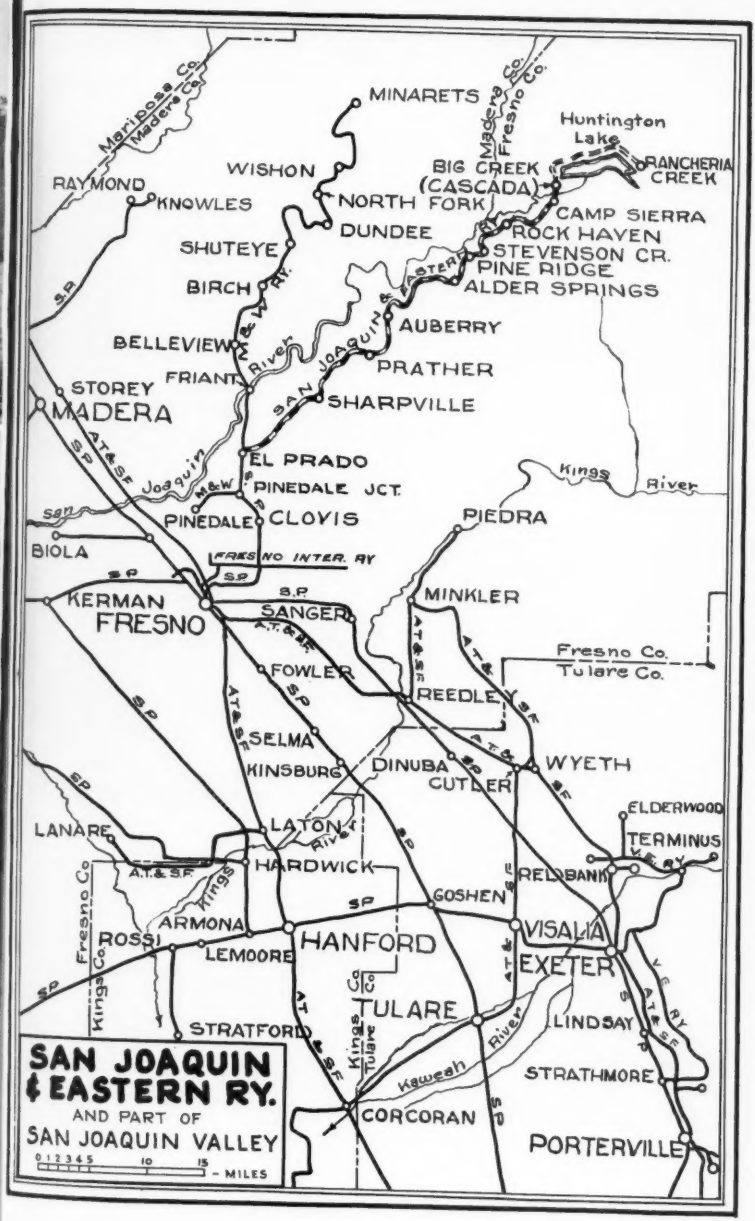
The site of this development was in a very rugged terrain, about 50 miles from the nearest railroad. The problem faced the builders of how to transport the 60,000 tons of cement, all the structural materials, the heavy penstock pipe as well as machinery and supplies into the hills. The usual method of transport in this district, freighting with 12 and 14 horse teams, was decided to be out of the question, not only on account of the amount of time required but principally on account of the excessive cost---the winter rate being $20 per ton. The contractor, Stone & Webster Construction Company, together with the power company decided to build a 56-mile standard gauge railroad from a point on the Southern Pacific's Friant branch about 22 miles north of Fresno at El Prado station to the site of power house No. 1. Since the power company thought that the Huntington Lake area might be developed into a resort area and the railroad might be of use even after end of construction, the railroad was incorporated on March 16, 1912, under the laws of the State of California as a common carrier and given the name of San Joaquin and Eastern Railroad.

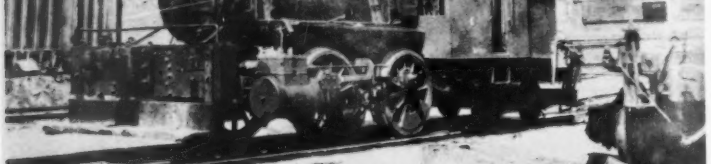
For about half of the distance the railroad was built on company-owned private right of way from El Prado to Auberry where the boundary line of the Sierra National Forest was reached. This lower division had maximum grades of only 2.4 percent and a maximum curvature of 20 degrees. On this lower division rod engines were used.

From Auberry to Cascada, as the railroad station was named, or Big Creek, as the place was known to the Forest Service, the line was built on a permit from the National Forest and the maximum gradient was 5 percent and the maximum curvature was 60 degrees. Many railroads have laid claims to being the crookedest railroad in the world---the Mount Lowe line of the Pacific Electric and the Mt Tamalpais & Muir Woods Railroad here in California among others---but there was nothing more crooked and twisted than that stretch of track from Auberry to Cascada. One of the most spectacular curves on the upper end was at Hairpin--aptly named. This hairpin turn in one of the lower side canyons above power house No. 3 was so sharp, even in later years when some of the worst curves had been straighted a little, that the edges of the box cars would come together and sometimes splinter. The passenger cars had rounded roofs shod with iron bars which were kept greased so that they could glide around these curves. On five and six car trains the man on the last car might have been able to shake hands with the fireman going around this hairpin turn had it not been for the difference in elevation. In later years the story was told that the Southern Pacific and other railroads so strenuously objected to having their box cars so manhandled that most goods were transferred at Aubury to ST&E flat cars.



Top - Big Creek Railroad (Stone & Webster) #102, used on construction work by contractor. From Randolph Brandt
Middle - Shaver Lake Railroad "Sierra", later SJ&E #1 from the collection of B. H. Ward.
Bottom - Stone & Webster #6, 0-4-4T, as it looked at Westwood, Cal., as Lassen Lumber & Box #21. D. S. Richter photo


MINARETS
Mariposa Co.
Madera Co.
Madera Co.
Fresno Co.
Huntington Lake
RANCHERIA CREEK
WISHON
BIG CREEK (CASCADA)
RAYMOND
KNOWLES
NORTH FORK
CAMP SIERRA
DUNDEE
ROCK HAVEN
SHUTEYE
STEVENSON CR.
PINE RIDGE
ALDER SPRINGS
BIRCH
M&W RY.
AUBERRY
BELLEVIEW
PRATHER
FRIANT
STOREY
SAN JOAQUIN RIVER
MADERA
SHARPVILLE
EL PRADO
Kings River
PINEDALE JCT.
PINEDALE
CLOVIS
PIEDRA
BIOLA
FRESNO INTER. RY
KERMAN
FRESNO
SANGER
MINKLER
Fresno Co.
Tulare Co.
FOWLER
REEDLEY
SELMA
KINSBURG
DINUBA
CUTLER
WYETH
ELDERWOOD
LANARE
LATON
TERMINUS
HARDWICK
RELIANCE
GOSHEN
ARMONA
VISALIA
ROSSI
LEMOORE
HANFORD
EXETER
TULARE
LINDSAY
STRATFORD
STRATHMORE
CORCORAN
PORTERVILLE
SAN JOAQUIN & EASTERN RY.
AND PART OF
SAN JOAQUIN VALLEY
0 1 2 3 4 5 10 15 - MILES



Top - Stone & Webster #4, 0-4-4T, used on construction work by contractor. From Collection of G. M. Best.
Middle - San Joaquin & Eastern #1, shay, taken at Auberry 11/4/34 by Dudley W. Thickens.
Bottom - San Joaquin & Eastern #205, 2-6-2, taken at the Baldwin Locomotive Works in 1924. From G. M. Best

Most of the ST&E flat cars were "strongbacks". On one end of the car was a bulkhead made of heavy timbers and tied-into the frame of the car. Around the frame was slung a steel cable 1½ inch in diameter with a loop at the end of the car opposite the bulkhead or strongback. Into this loop was fitted the shackle of the incline cable. When the car traveled in a train, the loop of the cable was hung on a hook to one side of the coupling.

At Cascada a railroad yard was laid out and connected with a standard gauge incline hoist to the basin above. In the basin some seven miles of construction track was built connecting the various dam sites, gravel pits, store houses and camps. Under this arrangement material could be delivered directly by rail to any part of the work.

The building of the railroad, including location, purchase of the right-of-way, arranging for government permits and actual construction was completed in 165 days, which was claimed as a record for railroad construction through difficult country. A spectacular piece of work was just about a mile below Power House No. 1---just about opposite the promontory on which Big Creek was situated. A nearly sheer wall of granite blocked progress at this point. A trestle was built around it and anchored with big iron bolts to the rock wall. While some posts reached to the rocks below, the trestle depended for its stability on these anchor bolts. It was quite a sight from the opposite side of the canyon to watch a train wind its way on this narrow shelf around the steep rock wall.

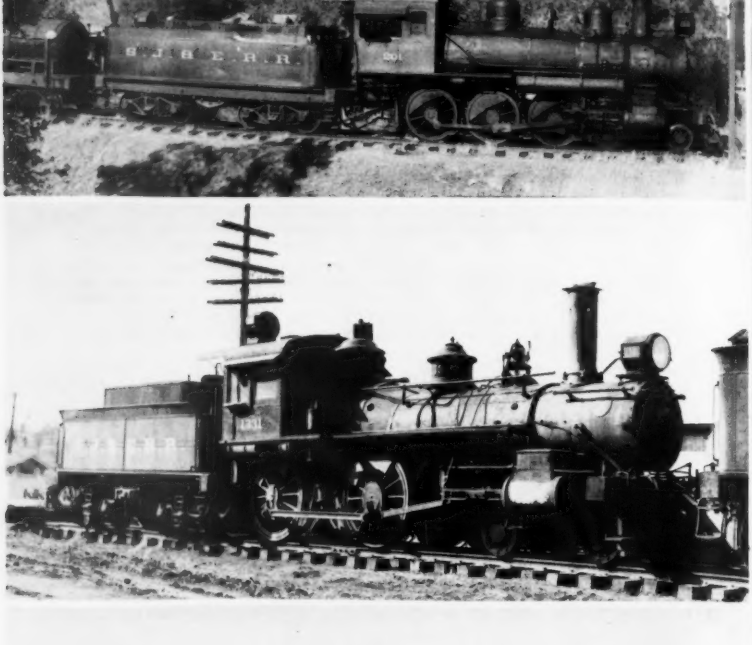
On August 1, 1912, regular train service was begun. Until the power development was completed in 1913, the road remained under the control of Stone & Webster Construction Company. A second incline was built at West Portal, about five miles below Cascada by rail, as an aid in the construction of the construction of the penstock and power house No. 2. This incline had a length of one and a quarter mile. After the dams at Huntington Lake were completed the construction trackage in the basin was taken up, but the inclines were left in place.

Two generators were placed in each power house and the 6600 voltson the generators were stepped up to 150,000 volts for the 275-mile transmission to Los Angeles on a double line of steel towers. Some years later two more generators were added in each of the two power houses and the line voltage stepped up to 220, 000 volts. This was the first transmission line in the United States to use such high voltage.

After the initial construction ended, the railroad formed the Huntington Lake Hotel Company with a capital stock of $25, 000. The new firm erected the Huntington Lake Lodge and a bid was made for tourist travel.

In May, 1917, the Southern California Edison Company purchased the properties of the Pacific Light & Power Company. Plans were made almost immediately by the new ower to raise the level of Huntington Lake by increasing the height of the three dams by 31 feet. Plans were also made for a long tunnel to tap the waters of the South Fork of the San Joaquin River and for two additional power houses below Power House No. 2. Work on the enlarged project began in September of 1917 bringing renewed life to the San Joaquin & Eastern Railroad.

For the construction of the lower power houses, penstocks and dams, two additional inclines were built making four in all. The hoisting machinery stood on the top of the grade. A cable of 1½ inch diameter wound and unwound on an immense drum more than 10 feet in diameter. Connected with this drum was an indicator which showed to the hoisting engineer the exact location of the car and a gage which showed the weight of the car and load at the end of the cable. The safe load for a single cable was 30 tons. The strongback car itself weight nearly 15 tons leaving but 15 tons for the load. This was good engough for daily operations, but when transformers, generators or length of penstock pipe were to be hauled, where the weight would go up to 45 or 50 tons, the cable had to be double-lined.



SAN JOAQUIN & EASTERN RAILROAD - Rod-type locomotives
Top - #201, 4-6-0, believed at El Prado, from Randolph Brandt
Middle - #1331, 4-4-0, taken at Auberry 3/4/33 by G. M. Best
Bottom - #2111, 4-6-0, taken at Auberry 3/4/33 by G. M. Best

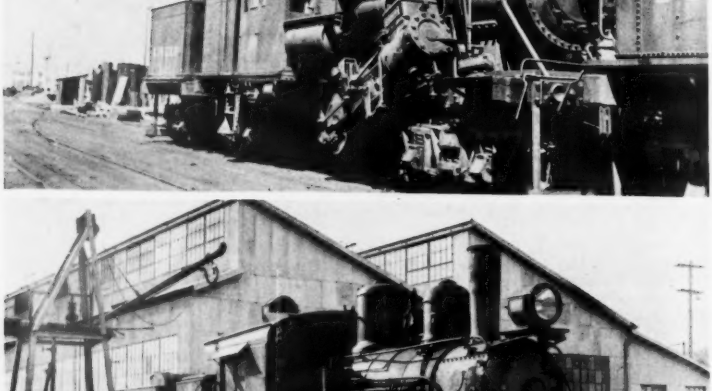
The foundation for the hoisting machinery was an immense concrete block securely anchored to the granite mountain. On the downhill side was a big hook. The free end of the cable was usually shackled to the car, but when the big loads were to be lifted this was fastened to the big hook. The cable was then run through a small bull wheel on the car. The cable ran from the hoisting drum to the bull wheel on the car and back to the hook on the hoist house. This meant that there had to be enough cable on the hoisting drum for twice the distance of the incline plus several hundred feet on the drum for safety against breaking loose.

All of the cable was made by Roebling especially for these inclines. The incline from Cascada to Huntington Lake was nearly a mile long and its cable a little over two miles. At the second incline, from West Portal to Power House No. 2, was a $2\frac{1}{2}$ mile cable. At the third, Feeney to Power House No. 8, there was three miles of cable on the drum. The fourth incline at Hairpin to Power House No. 3 had four miles of cable. While the end of the cable on the drum did not get as much wear as the end on which the car was hauled, the cable was from time to time reversed to even the wear. This was a hard, eighteen-hour, job, and during one such operation at Feeney the cable got away and came down the grade like a wild snake slashing all over the hillside. Two men were not quick enough to get out of the way and were badly maimed. One died and the other lost both legs. For the scope of the operations, however, there were relatively few accidents. A big carload of rails broke loose near the top above Big Creek, but the brushy and wooded hillside stopped most of it before it reached the village. Another time a steam shovel went backwards over the strongback and came rolling down the hill, but no one was hurt.

At first not much signaling was done along the inclines as all loads were taken from bottom to top or vice versa, but when the construction of the penstocks began--which paralled the inclines--stops had to be made enroute. Leatherlunged youngsters were stationed at intervals along the route to holler to one another and finally reach the hoistman. This was found to be unsatisfactory and two signal wires where strung along the track and a man with a "joystick" assigned to ride the car. The joystick had metal ends and was used to short the two signal wires. When the stick made contact a bell would ring and a light would go on in the hoist house. One bell meant up or stop, two bells down, four meant up very slow and five down very slow. Three bells meant to hold the cars where they were and they could not be moved until another three bells were given followed after an interval of at least a minute by the up or down signal.

During June, 1919, the Southern California Edison Company purchased the Shaver Lake milling and timber properties of the Fresno Lumber & Irrigation Company. This company had operated a tow-steamer on Shaver Lake and a 12-mile logging railroad. It sent its lumber from the mill at Shaver Lake in a 45-mile long flume down Stevenson Creek and the San Joaquin River canyon to its lumber yards at Clovis, 11 miles from Fresno, but the mill had been idle since 1914. The power company incorporated the Shaver Lake Lumber Company and a branch track was constructed from Dawn on the San Joaquin & Eastern to Shaver Lake. Most of the lumber produced thereafter was used on the construction of the Big Creek Project.

After the Shaver Lake basin had been cleared of timber and a water tunnel drilled from Shaver Lake to West Portal the railroad to Shaver Lake was inactive for several years until the Winter of 1925 when preparations were made for the construction of the present Shaver Lake Dam. Men and materials were hauled over the branch by a shay locomotive. The heavy winter rains loosened the red clay soil and the lower side of the track had to be shored up with boards and blocks of wood. Ever so often this shoring would give way and the train would proceed at an angle seemingly of 45 degrees with the men riding on the flat cars trying to hold on to their baggage and stay on the car at the same time. With the cessation of the winter rains the track became more stable. When the dam was finished in 1927 the Shaver Lake branch was taken up.



SAN JOAQUIN & EASTERN RAILROAD - Climax-type geared locomotives
Top - #105 taken at Auberry 11/4/34 by Dudley W. Thickens
Middle - #106 taken in Oakland in 1935 from G. M. Best
Bottom - #107 taken at Auberry 3/4/33 by G. M. Best

On the lower end, between El Prado and Auberry, all trains were operated with rod engines. Auberry was the division point and the site of the railroad shops and company warehouses. During Stone & Webster's time and for some years after shays were used which would push the trains up the hill. Later climax type engines took their place on the main line hauling the trains in more conventional fashion. The shays were delegated to yard and branchline work.

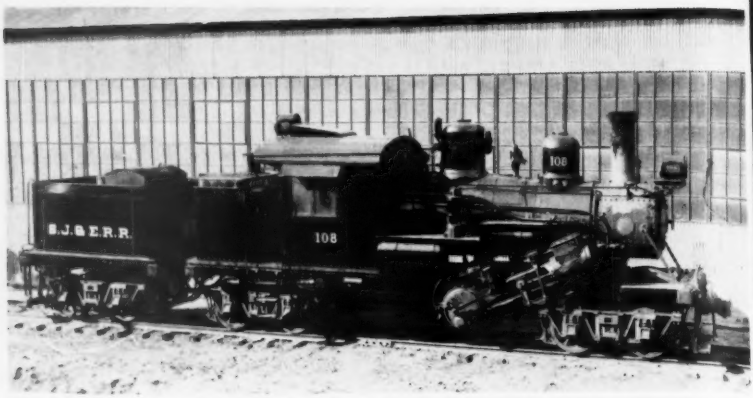
A trip up the hill was quite an experience. The "up" train was called, unofficially, the "Hobo Special" and the "down" train was called, also unofficially, the "Millionaire Limited". From its initials the railroad was dubbed the "Slow, Jerky and Expensive"---and indeed it was all three. The schedule was slow, the operation rough and the fare was 10¢ per mile on a one way trip. The cost of the round trip was only $1.45 higher than the one way fare. Men going to work on the project were charged the full one-way fare for the up-trip and the difference between that and the roundtrip fare for the return down to Fresno when quitting. Since no great speed was made, hardly any serious accidents occurred, however one locomotive, I believe it was the 103, blew up badly burning its enginemen. The engineer died a few days later.

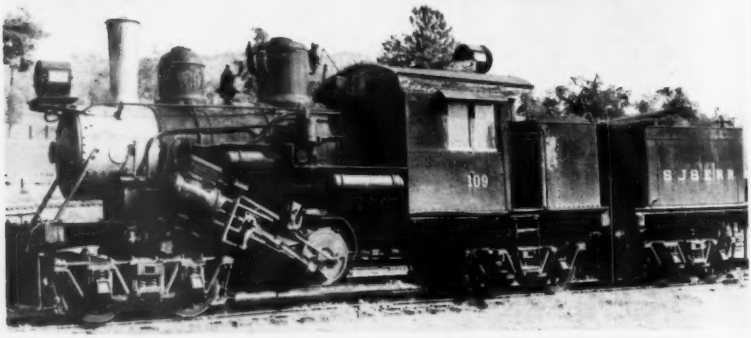
Another time rains had weakened the roadbed and the downhill passenger train leaned over on its side against the bank. With the bootleggers and girl friends waiting at Fresno the "Millionaires" on the train had visions of their Saturday night being lost. They pitched-in in their Sunday-best and helped the train crew right the train with the result that they were only a half hour late getting into Fresno.

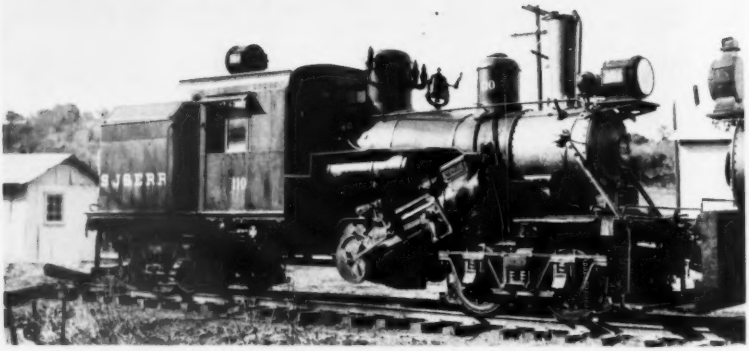
The consist of the passenger train was generally one express freight car loaded with meat and perishables for the camps, a baggage-express car and two passenger cars, one with an observation platform. They were operated out of Fresno on the end of the Southern Pacific branch train to Friant and transferred to the S.J.& E. at El Prado. The S.J.& E. rod engine would haul the train to Auberry where a geared engine would take over. During the stop at El Prado a group of local youngsters would go through the train selling bags of fresh fruit to the passengers. After leaving El Prado the right of way was unfenced through the grazing lands. A down-train was once stopped by a number of cows which flatly refused to get off the track. At this point the track was about a foot below the pastures on both sides and while the engine crew was trying to get the animals to move some cows on the bank at the rear of the train stuck their heads under the awnings of the observation platform scaring the wits out of some women passengers. One woman who nearly got kissed by the bovine animal protested to the conductor as follows: "They got a cow-catcher on the front of the locomotive and on this railroad they should have on on the rear of the train too."

At Auberry a short stop was made to change engines. A climax would take over, blasting its way up the hill. It made enough noise to travel at a speed of 100 miles per hour, but actually going up the steep grade at six miles per hour. Down hill the speed was not much greater due to safety precautions. At Stevenson Creek the two trains usually met. This was also the lunch stop. On the up-ticket was a coupon for lunch and the conductor would phone up from Auberry the number of lunches needed. On the down-train the conductor would collect fifty cents from those who wanted lunch when he punched the tickets, and phoned-in from a convenient water stop. The lunches consisted of sandwiches, pie, fruit and a beer bottle full of hot coffee. The train crew later carefully collected the empty bottles.

Men going to work at the power houses were taken on the inclines, but first had to sign waivers absolving the company from responsibility in case of accident. The first ride was quite a trip--especially on some of the 70 to 80 degree slopes when the passengers found themselves standing up while lying down on the car with their feet against the bulkhead or cross boards. Those men going to work in the upper camps on the other side of Kaiser pass transferred to busses at Cascada.... they also had to sign waiver first.







SAN JOAQUIN & EASTERN RAILROAD - Climax-type geared locomotives
Top - #108 taken at Auberry 3/4/33 by G. M. Best
Middle - #109 taken at Auberry 11/4/34 by Dudley W. Thickens
Bottom - #110 taken at Auberry 3/4/33 by G. M. Best

During the winter of 1926-27, when the work on the project was somewhat slack, the passenger train ran tri-weekly, going up one day and coming down the next. In the spring, with the renwal of full-time construction, daily service was resumed.

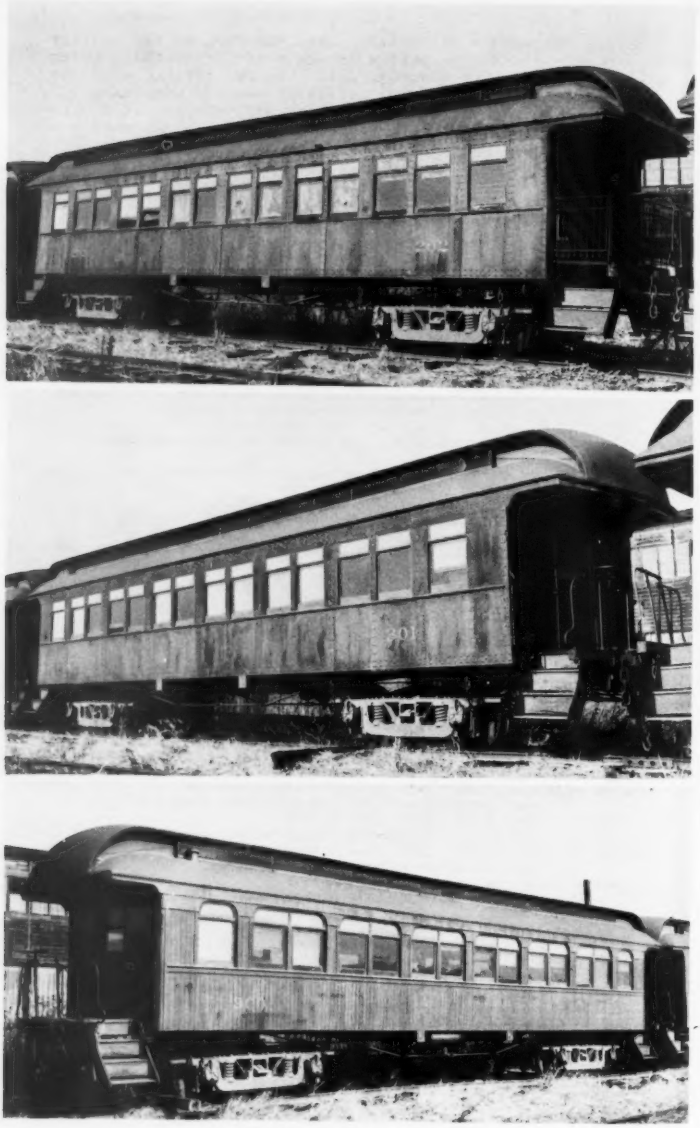
With the passage of the Boulder Dam Bill the Edison Company lost interest in the Big Creek project due to the Federal power expected from the Colorado River. The railroad kept running on a reduced schedule for a while, mostly for the mail contract. With the depression of '29 even the slim amount of tourist and freight traffic ceased. In the spring of 1930 the railroad and the four inclines were dismantled.

Roster of Locomotives

SAN JOAQUIN & EASTERN RAILROAD - BIG CREEK R.R. (STONE & WEBSTER)

1	shay 2-T	Lima #711 1902 29-10x10-72000-180-13000 ex-Fresno Flume & Irrigation Co. #1, Shaver Lake RR #1, purchased 1/1/26; sold Liberman Rosencrants Company in 1933.
2	shay 2-T	Lima #2461 1911 29-10x12-90000-180-16900 ex-Shaver Lake RR #2; retired 8/30; sold Santa Cruz Lumber Co.
4*	0-4-4T	Rhode Island "ex-New York elevated"; sold Red River Lumber #4 in 1925; sc.'34.
5*	0-4-4T	Rhode Island "ex-New York elevated"; sold for scrap
6*	0-4-4T	Rhode Is. #2252 1889 42-12x16-56500 ex-Los Angeles, Pasadena & Glendale #1, Los Angeles Terminal #1; San Pedro, Los Angeles & Salt Lake #21; Stone & Webster #6; sold Lassen Lumber & Box #21; sold Red River Lumber in 1929; scrapped '40.
100*	shay 3-T	Lima #2533 1912 32-11x12-120000-200-25830 Big Creek RR #100; sold English Lumber Co. #9
101*	shay 3-T	Lima #2534 1912 same as #100 Big Creek RR #101; sold 1916 to Red River Lumber #110; sold in 1937 for resale in Phillippine Islands.
102*	shay 3-T	Lima #2564 1912 same as #100 Big Creek RR #102; sold to Edward Rutledge Timber Co.; Coeur d'Alene Mill Co., Potlach Forests Co., Inc.
103*	shay 3-T	Lima #2601 1912 same as #100 Big Creek RR #103; sold to Nehalem Timber & Logging Co.; Clark & Wilson Lumber Co.
104*	shay 3-T	Lima #2606 1912 same as #100 Big Creek RR #104; sold 1916 to Red River Lumber #111; scrapped '40.
105	climax 3-T	Climax #1441 1917 35-14½x16-140000-200-32700 sold Liberman Rosencrants Company in 1933; shipped overseas
106	climax 3-T	Climax #1445 1917 same as #105 sold Liberman Rosencrants Company in 1933; shipped overseas
107	climax 3-T	Climax #1583 1920 same as #105 sold Liberman Rosencrants Company in 1933;
108	climax 3-T	Climax #1537 1919 same as #105 purchased second hand 11/16/21; sold Liberman Rosencrants Co. 1933.
109	climax 3-T	Climax #1627 1921 same as #105 sold to Liberman Rosencrants Co. in 1933.
110	climax 2-T	Climax #1636 1921 35-12x15-90000-190-18600 ex-California Peach & Fig Growers #2; purchased 12/10/26; sold to Liberman Rosencrants Co. 1933; to Madrigal & Co., Manila, P.I.
201	4-6-0	Baldwin #41472 1914 56-18x24-115000-180-21240 sold to Liberman Rosencrants Co. 1933; to Modesto & Empire Traction #6 in 1936; scrapped.
205	2-6-2	Baldwin #57613 1924 49-17x24-128000-200-23460 sold to Santa Maria Valley RR #205 in 1933; donated Santa Barbara County Fair 1950.
1331	4-4-0	Schen. #1210 1880 63-17x24-114000-140-13100 Southern Pacific of Arizona #37; S.P. 117; S.P. 1331; acquired 1911; sold Liberman Rosencrants Co. 1933; scrapped 1935.
2111	4-6-0	Rogers #2878 1881 54-18x24-145300-160-18360 Southern Pacific of New Mexico #36; S.P. 195; S.P. 1673; S.P. 2111; acquired 1911; sold Liberman Rosencrants Co. 1933; scrapped 1935.

*starred engines used on property during construction by Stone & Webster Construction Company.



SAN JOAQUIN & EASTERN RAILROAD - Passenger Cars

Top - Steel observation car #202
Middle - Steel coach # 301
Bottom - Wooden coach #300
Photos taken at Port Chicago 11/1/36 by Dudley W. Thickens

SAN JOAQUIN & EASTERN R. R. CO.

TIMETABLE NO. 26

Effective 12:01 A.M. October 4, 1928

EAST BOUND (Read Down) Lv. Wed. Fri.	Lv. Sun.	Lv. Tues. Thur. Sat.	Car Capacity	Telephones		STATIONS		Distance from El Prado	WEST BOUND (Read Up) Arr. Wed. Fri.	Arr. Sun.	Arr. Tues. Thur. Sat.
4	6	2							1	5	3
P.M. 3:15	P.M. 8:15	A.M. 8:55	17	T	D	El Prado	WO YB	.0	P.M. 3:00	P.M. 8:00	A.M. 8:35
						—5.5—					
3:35	8:35	9:10	3	T	F	Dry Creek	A	5.5	2:40	7:40	8:12
						—4.2—					
3:52	8:52	9:25	10	T	F	Sharpville	C	9.7	2:29	7:29	7:59
						—3.1—					
4:04	9:04	9:35		T	F	McKenzie	W	12.8	2:21	7:21	7:46
						—3.3—					
4:15	9:15	9:47	11	T	F	Wellbarn	C	16.1	2:09	7:09	7:35
						—5.4—					
4:35	9:35	10:05	7	T	F	Lodge	C	21.5	1:51	6:51	7:15
						—1.7—					
4:41	9:41	10:11	2	T	F	Qualls	A	23.2	1:45	6:45	7:09
						—2.9—					
4:50 P.M.	9:50 P.M.	10:20 10:25		T	DS	Auberry	WO YB	26.1	1:37 1:32	6:37 6:32	7:00 A.M.
						—3.7—					
		10:50	14	T	F	Indian Mission	C	29.8	1:05	6.05	
						—2.4—					
		11:08	6	T	F	Hutchins	WC	32.2	12:48	5:48	
						—1.8—					
		11:20	10	T	F	Thirty-Four	C	34.0	12:35	5:35	
						—0.9—					
		11:26	7	T	F	Lerona	C	34.9	12:28	5:28	
						—2.6—					
		11:44	15	T	S	Hairpin	C	37.5	12:11	5:11	
						—1.9—					
		11:57	20	T	F	Basin	C	39.4	11:57	4:57	
						—0.9—					
		12:07	7	T	F	Webstone	WC	40.3	11:51	4:51	
						—2.7—					
		12:35	6	T	F	White Pine	C	43.0	11:32	4:32	
						—2.3—					
		12:52	10	T	S	Stevenson Creek	WC	45.3	11:15	4:15	
						—2.6—					
		1:10	11	T	F	Dawn	CB	47.9	10:57	3:57	
						—1.0—					
		1:17	6	T	F	Feeney	WC	48.9	10:50	3:50	
						—1.5—					
		1:27	6	T	F	West Portal	C	50.4	10:40	3:40	
						—2.0—					
		1:41	5	T	F	Shaver Crossing	C	52.4	10:25	3:25	
						—1.6—					
		1:52	6	T	F	Camp Sierra	C	54.0	10:14	3:14	
						—1.9—					
		2:10 P.M.	40	T	D	BiG CREEK	YB WO	55.9	10:00 A.M.	3:00 P.M.	

EXPLANATION OF CHARACTERS

D Day Station
F Flag Station
T Telephone
W Water
O Oil
Y Yard
S Stop
B Wye
C Siding
A Spur

RAILWAY AGE REPORTS: Merger of the GN-NP-CB&Q-SP&S under study; would make 27,000 mile road. SN reorganization plan approved by ICC to issue stock for present bonds. ICC has authorized OUTER HARBOR TERMINAL to abandon its .8 mile line and operation in the Outer Harbor area of Los Angeles. ICC approves abandonment of SD&AE operation under trackage rights over SP from El Centro to Calexico. ICC approved abandonment of service by UP and abandonment of line by Oregon-Washington RR of Tono branch from Wabash, Wash. to end of line 6.5 miles. PFE orders 1800 reefers and 200 super-reefers from own shops at cost of $26,000,000. NP orderes 14 covered hppers from Gen. American for March delivery at $12,515 per car. Santa Fe orders two business cars from Budd for delivery 1st qtr. '57. NP will spend $790,000 for diesel maintenance facilities at Livingston, Montana.

FERROEQUINOLOGIST All of the engines of the Caspar Lumber Co. have been scrapped except mallets 5 and 7 still stored at Caspar. Sierra #36, 2-8-2, has been sold to a Arizona Lumber company. S.P. observation 2901 is being given to Central Coast Railway Club as a private car. Western Pacific Niles depot has been re-named Fremont following incorporation of the area under the later name.

WESTERN NOTES WP 166 and 483 have been sold to Purdy Co., South San Francisco 1/30 leaving only the 94, 164, 165, 334 and 486 left in the way of steam on the W.P.. St Louis Southwestern steam engines 751, 553, 755, 568, 773, 777, 781 and 783 (all 2-8-0's) are now SP 2861-2868; St L.S.W. 813 (4-8-4) is now S.P. 4488. Paramount Pictures #11 (ex-V&T #11) is getting a new boiler. US Potash #3 arrived on a flat car 2/7 in San Bernardino enroute to LA County Fairgrounds Pomona; it is a n.g. 2-8-0, Baldwin #21882, 1903. The two old shays at Quincy Lumber, Quincy, California have been scrapped. Howard Terminal #6 (ex-Sierra 30) 2-6-2T is due for flues in April.

END OF THE NAPA VALLEY ROUTE The Navy is in the process of acquiring that portion of the Mare Island Freight line in Solano County and will connect with the S.P. at the county line. The line is jointly owned by the SF&NV and the SN who will split the purchase price of $192,500. The SF&NV will abandon it's trackage in Napa County between the county line and Napa Junction and steps are now underway to dissolve the corporation.

ELECTRIC NOTES The SF Muni is again studying plans to lease street cars for the J, K, L, M and N lines. The Geary lines (B and C) seemed doomed as soon as the Geary Expressway construction starts. The Mayor of Oakland made a visit to the Mayor of San Francisco to push the Key System plan to abandon trans-bay train service, but the new S.F. Mayor refused to commit himself. Meantime the State Utilities Commission is carrying on discussions of the shuttle system providing for trains on the bridge, but busses in the East Bay.

ELECTRIC RAILWAY REVIEW S.F. Muni #1 is now officially an historical relic and will have its motors removed. S.F. Muni workcar 0601 has now been rebuilt back to a passenger car as an historic relic for the Maritime Museum. P.E.'s 5050's stored in the Los Angeles subway since end of the Glendale service are being moved by truck to a scrap yard. P.E. Business Car 1299 is now being stored at San Bernardino--the only carbarn space available. The P.E. cars operated by Metropolitan Coach Lines are being relettered with the Metro insignia. British Collumbia Electric Ry car 1304 which had been donated to the Seashore Electric Ry has been given to the Willamette Valley Ry Ass'n.

RAILFAN EXCURSIONS COMING UP IN THE IMMEDIATE FUTURE

MARCH 18 - CNRHS Western Pacific trip to Oroville behind steam engine #334 for $6.50. Accomodations are Limited.
APRIL 8 - BAERA Southern Pacific Oakland switching limits tour including ex-IER trackage.
APRIL 22 - R&LHS Southern Pacific trip to Kentucky House with steam all the way. Fare $8.00

CNRHS - A. L. Lloyd, Jr., 3533 Pasadena Dr., San Mateo, Calif.
BAERA - Addison Laflin, Jr., 2119 Marin Ave., Berkeley 7, Calif.
R&LHS - J. E. Turner, 1739 Berkeley Way, Berkeley, Calif.